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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,655	11/18/2003	Patrick Duvaut	060707-1680	2525
24504 7590 08/01/2007 THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP 100 GALLERIA PARKWAY, NW STE 1750 ATLANTA, GA 30339-5948			EXAMINER BOLOURCHI, NADER	
			ART UNIT 2611	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/714,655

Applicant(s)

DUVAUT ET AL.

Examiner

Nader Bolourchi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☒ Claim(s) 10-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### Remarks

1. Applicant's amendment dated 6/14/2007 is entered.
2. Applicant canceling claims 9 is acknowledged.
3. Drawings objections are withdrawn.
4. Specification objection is withdrawn
5. Claim objections are withdrawn.
6. Double Patenting rejection is withdrawn.
7. Claim rejection under 35 USC § 112 rejection is withdrawn.
8. Claims stand rejected under 35 USC § 102.

### Response to Arguments

9. Applicant's arguments filed 6/14/2007 have been fully considered but they are not persuasive.

10. The Applicants argues as follow (dotted line emphasis added by Examiner):

Applicants submit that *Darveau* fails to disclose, teach, or suggest the feature of "defining a candidate system to be implemented by an LDSL system, wherein defining a candidate system comprises defining a number of power spectral density (PSD) ..... masks," as recited in claim 1. In amending claim 1, Applicants have canceled dependent claim 9, which is directed to masks. In rejecting claim 9, the Office Action referred to FIGS. 7-9 in the *Darveau* reference in alleging that *Darveau* teaches of "defining a number of masks." However, Applicants respectfully submit that *Darveau*.

fails to teach of defining a number of power spectral density (PSD) masks. In amending  
claim 1, Applicants have clarified that the "masks" recited in the claim refers to power  
spectral density (PSD) masks. Applicants refer to the BRIEF DESCRIPTION OF THE  
DRAWINGS section in the *Darveau* reference (emphasis added):

FIG. 7 is a table defining signal parameters as they apply to an embodiment of the invention using QAM/CAP signal modulation techniques for downstream transmission signals and PAM signal modulation techniques for the upstream transmission signals.

FIG. 8 is a table defining signal parameters as they apply to an embodiment of the invention using QAM/CAP signal modulation techniques for both downstream and upstream transmission signals.

FIG. 9 is "a table defining carrier allocations as they apply to two embodiments of the invention using DMT signal modulation techniques for the downstream and upstream transmission signals.

As clearly seen in the brief descriptions above (as well as in the related text) for the  
figures cited by the Office Action, *Darveau* fails to disclose any type of power spectral  
density (PSD) masks.

Examiner respectfully disagrees. *Darveau* in Figs. 3 and 4. clearly shows number of power spectral density masks. These include those signal power distribution in accordance with ANSI T1.413 (col. 3: lines 33-35). Furthermore, figures 7-9 indicates different signal parameters applied to these masks. Therefore claims stand rejected.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Darveau (US 6,760,383).

Regarding claim 1, Darveau discloses a method for implementing smart DSL (both Asynchronous and synchronous DSL recited as ADSL and SDSL in col.2: line 32-35) for LDSL systems (last 3 lines of Abstract), the method comprising: defining a candidate system to be implemented by an LDSL system (Fig. 5), wherein defining a candidate system comprises defining a number of power spectral density masks (power spectral density masks in Figs. 3 and 4, which includes the PSD in accordance with ANSI T1.413, recited in col. 3: lines 33-35; Examiner notes that figures 7-9 indicates different signal parameters which are applied to these masks); optimizing criteria associated with the candidate system to create an optimized candidate system (improved transmission distance shown in Fig. 4; col. 4: last paragraph); and selecting the optimized candidate system to implement in an LDSL system (Figs. 7-9; col. 7: line 28 to col. 8: line 49)

Regarding claim 2, Darveau discloses as stated in rejection of claim 1 above.

Furthermore, Darveau discloses that defining a candidate system further comprises: determining features of upstream transmission (DUT-R to DUT-C in Figs. 7-9).

Regarding claim 3, Darveau discloses as stated in rejection of claim 1 above.

Furthermore, Darveau discloses that determining features of upstream transmission further comprises: determining one or more of: cut-off frequencies, side lobe shapes,

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overlap, partial overlap or FDD characteristics (FDD in Fig. 4.; DUT-R to DUT-C along with DUT-C to DUT-R in Figs. 7-9).

Regarding claim 4, Darveau discloses as stated in rejection of claim 1 above.

Furthermore, Darveau discloses that defining a candidate system further comprises: determining features of downstream transmission (DUT-C to DUT-R in Figs. 7-9).

Regarding claim 5, Darveau discloses as stated in rejection of claim 1 above.

Furthermore, Darveau discloses that determining features of downstream transmission further comprises: determining one or more of: cut-off frequencies, side lobe shapes, overlap, partial overlap or FDD characteristics (FDD in Fig. 4.; DUT-R to DUT-C along with DUT-C to DUT-R in Figs. 7-9).

Regarding claim 6, Darveau discloses as stated in rejection of claim 1 above.

Furthermore, Darveau discloses that optimizing criteria associated with the candidate system further comprises: optimizing criteria associated with the candidate system to fulfill upstream and downstream performance targets.

(data rate in Figs. 7-9)

Regarding claim 7, Darveau discloses as stated in rejection of claim 1 above.

Furthermore, Darveau discloses that selecting a candidate system to implement in an

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LDSSL system further comprises: selecting a spectral mask for use with upstream or downstream transmission (Fig. 4; col. 6: lines 28-44).

Regarding claim 8, Darveau discloses as stated in rejection of claim 1 above.

Furthermore, Darveau discloses that selecting a candidate system to implement in an LDSSL system further comprises: selecting a candidate system during modem handshake procedures (connection of DTU-C and DTU-R shown in Fig. 5, which result in masks shown in Figs. 7-9) .

***Allowable Subject Matter***

12. Claims 10-16 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims.

13. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

***Remarks***

14. No claim is allowed.

### Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

17. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nader Bolourchi whose telephone number is (571) 272-8064. The examiner can normally be reached on M-F 8:30 to 4:30.



19. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David. C. Payne can be reached on (571) 272-3024. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

20. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

Nader Bolourchi  
7/21/2007  
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DAVID C. PAYNE  
SUPERVISORY PATENT EXAMINER